

What is claimed is:

1. Apparatus for processing video comprising:
- 5 a segmenter for segmenting video sequences;
 a video processor for processing the video segments of the video
sequences and identifying common attributes between video segments; and
 a database for storing processed segments of the video sequences,
where a plurality of processed video segments are linked via the identified
10 common characteristics.
2. The apparatus of claim 1 further comprising:
 a DVD authoring tool.
- 15 3. The apparatus of claim 2 wherein said DVD authoring tool provides
interactive links between video segments.
4. The apparatus of claim 3 wherein said interactive links are based upon
at least one attribute of said video segments.
- 20 5. The apparatus of claim 1 further comprising:
 a web page authoring tool.
6. The apparatus of claim 5 wherein said web page authoring tool provides
25 interactive links between video segments.
7. The apparatus of claim 6 wherein said interactive links are based upon
at least one attribute of said video segments.
- 30 8. The apparatus of claim 1 further comprising:
 a low resolution video compressor; and
 a high resolution video compressor.

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9. The apparatus of claim 1 further comprising:

a temporary storage, coupled to said at least one video compressor, for storing said video sequence

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10. The apparatus of claim 1 wherein said video processor further comprises:

a signal enhancer, coupled to said temporary storage, for enhancing the video sequence.

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11. The apparatus of claim 10 wherein the signal enhancer comprises one or more circuits selected from the group of circuits comprising noise reduction, resolution enhancement, image stabilization, deinterlacing, and brightness and color control.

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12. A method of image processing comprising:

segmenting a video sequence into video clips;

storing said video clips in a database with an associated unique identifier;

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storing said video clips in said database;

indexing said stored video.

13. The method of claim 12 further comprising:

accessing said database using a web page authoring tool to organize said video clips.

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14. The method of claim 13 wherein said web page authoring tool provides interactive links between video clips.

30 15. The method of claim 14 wherein said interactive links are based upon at least one attribute of the video clip.

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resolution compressor;

5 video sequence onto a DVD.

10 18. The method of claim 17 wherein said interactive links are based upon at
least one attribute of the compressed video clip.

19. The method of claim 12 further comprising:
adding ancillary data to said video clips.

20. The method of claim 19 wherein the ancillary data is an annotation.

21. The method of claim 19 wherein the ancillary data is an index to other video clips having similar attributes.

22. The method of claim 12 further comprising:
enhancing the stored video clips.

23. The method of claim 22 wherein said enhancing further comprises:
reducing image noise in said video clips.

24. The method of claim 23 wherein said step of reducing image noise further comprises:

aligning images in an image sequence within the video clip;
30 averaging pixels in said aligned images over time;
performing a temporal fast Fourier transform on said averaged pixels
to produce a control signal;

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25 wherein said deinterlacing step further comprises:

- a) mapping a first image field to a second image field of an image sequence within said video clip to produce a flow field;
- b) estimating pixel vertical motion to said flow field;
- c) warping a first image field using said flow field;
- d) warping a second field with said first field to produce a progressively scanned frame.

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adding a one-half pixel vertical motion to said flow field;

warping said second image field using said flow field;

interleaving said warped second field with said first field;

outputting a progressively scanned frame.

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aligning a first image field to a second image field of an interlaced

scanned image sequence to produce a flow field;

adding a one-half pixel vertical motion to said flow field;

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warping said second image field using said flow field;

interleaving said warped second field with said first field;

outputting a progressively scanned frame.